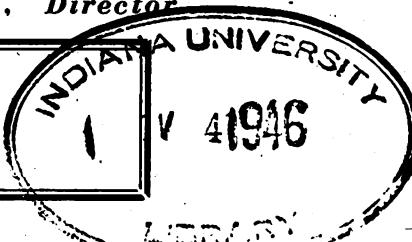


Foreign &amp; Domestic Commerce Bureau

**Industrial Reference Service**U. S. DEPARTMENT OF COMMERCE, HENRY A. WALLACE, *Secretary*  
Office of International Trade, ARTHUR PAUL, *Director***Part 1. TRANSPORTATION and  
PUBLIC UTILITIES**Available in Parts Covering Selected Services and Commodities  
Annual Subscription \$1.50. Price this report 5 cents

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., or any of the Department's Field Offices

Volume 4—Part 1

September 1946

Number 18

**D 16350****Railways of Uruguay**By Elisha E. Early, Transportation and Communications Division, Special Services and Intelligence Branch  
Based on Reports of Foreign Service Officers, United States Embassy, Montevideo, Uruguay, and Other Official Reports

Courtesy of Ministry of Public Instruction and Social Security

Uruguay—Electric cranes at the port of Montevideo

# Railways of Uruguay

Uruguay, smallest of the South American republics, has an area of 72,153 square miles. Estimated population of the republic in 1944 was 2,235,000. Population density based on the 1944 figure is slightly more than 32 persons per square mile.

Brazil bounds Uruguay on the north, the Atlantic Ocean and the Rio Uruguay on the east, and Argentina and the Rio de la Plata on the south and west. The terrain rises gently from the eastern seaboard until it reaches upland hills at a divide known as the "Cuchilla Grande," about 1,500 to 2,000 feet above sea level. The countryside slopes from "Cuchilla Grande" to the Uruguay River. In this immediate vicinity are found some of the best grazing lands in the world.

Many tourists are attracted to Uruguay because of the fine ocean beaches and ideal climate. It is very rare for the temperature to go below freezing or rise above 72°F., and there are no pronounced wet or dry seasons. Uruguay has not only become a vacation playground for tourists from the United States and other parts of the world, but many of its South American neighbors take advantage of the beaches and climate of Uruguay and flock there to spend their vacations.

Uruguay is almost exclusively a pastoral country, livestock being the prime industry of the republic. The principal exports of Uruguay are wool, meat and canned beef, hides, skins, and their byproducts. Practically all of the few products of agriculture are used domestically, but there are some exports of barley, corn, wheat, oranges, and linseed. Some potatoes and tropical produce are imported from other countries, the major portion from the United States.

Natural mineral resources are very scarce. There are some traces of coal, but no attempts have been made to mine it. Many quarries are in operation throughout the country. They supply much granite and marble for export.

Transportation facilities of Uruguay are in better condition than most of those of the other South American republics. More than 700 miles of navigable rivers serve Uruguay, and the main highway system is reasonably well developed and should be greatly improved through appropriations provided by the recently authorized Government 5-year plan of public works.

## Trackage and Ownership

The total trackage of the railways and tramways of Uruguay is 3,310.8 kilometers. A break-down shows that 2,644.8 kilometers are British controlled, and 15 kilometers are privately

owned. The remainder of 651 kilometers is operated by the Uruguayan Government. Four of the more important railways of Uruguay—Central Uruguay Company of Montevideo Ltd., Midland Uruguay Railway Company Ltd., North-Western of Uruguay, and Uruguay Northern Railway—are controlled by private British interests. The railways, from their strategic locations, all have important bearings on the economy of Uruguay.

## Electrified Lines

The only electrified railways in Uruguay are the streetrailways operated by the Uruguayan State Railways and the Montevideo Tramway Company. Approximately 16 kilometers of street-railways are operated by the State Railway running from Montevideo to Santiago Vasquez. The remaining 256.8 kilometers of single-track tramways are run by the Montevideo Tramway Company. Outlying areas of Montevideo are serviced by the latter company. Power consisting of 560 volts of direct current for these lines is conveyed by overhead trolleys.

## Physical Characteristics

Severe gradients and curvatures present themselves on practically all of the railways throughout the Republic. Such information as gages, length of line, and other pertinent data are included in the discussions of the individual railways.

## Equipment

There is no railway equipment industry as such in Uruguay; each railway owns and operates its own repair and construction shops. The general condition of the railway equipment on the various roads in most cases is good and is still dependable for operation. Some of the locomotives have become obsolete, but this factor has not caused them to be discarded because in the case of an emergency they can be used and are often pressed into service. Materials for equipment are imported mostly from the United States. However, the equipment is assembled within Uruguay.

## Signaling Equipment

The signal equipment used by the railways of Uruguay is not uniform. In most cases the signal devices vary slightly; that is, each company has in use only signals which are necessary for the safety of the road. The types of signals in use consist of automatic, hand-operated, telephone and telegraph, radio, semaphores, and flags. Flags, however, have almost completely disappeared.

## Radio and Telephone

Radios are not standard equipment and are not used on the trains of Uruguay. There is in use, however, an intertrain telephone for contacting stations, and for contacting other cars of the train. These telephones are of the portable type and may be operated by connecting with plugs for intertrain communication. For contacting stations it is necessary to connect them to the telephone line which parallels the railroad.

## Air Conditioning

Some of the roads employ air conditioning in a minor degree; as a whole, however, air conditioning is not in very wide use on the trains of Uruguay. Refrigerator cars are used quite extensively throughout the Republic, especially for the movement of perishable commodities, principally chilled and frozen beef. While a number of refrigerator cars are already in service on the various roads, there is, however, such a demand for this type of equipment that many more might be used.

## Uruguayan Railroad System

All of the main railways of the Republic spread out in fan shape from Montevideo eastward to Puerto La Paloma on the Atlantic Coast, westward along the coast through Montevideo to the Brazilian border at Rio Braco, Rivera, Quarahy, and Quarahim. The railway system is well integrated. Helping greatly in the efficiency and operation of the railways is the uniformity of gages on the principal lines of the country.

The following data give a breakdown of Uruguayan railways which are privately owned and financed by British capital:

THE CENTRAL URUGUAY RAILWAY COMPANY OF MONTEVIDEO, LTD. (Ferrocarril Central del Uruguay). Local address: Estacion Central, La Paz 1095, Montevideo, Uruguay.

Length—single or first track, 1,579.0 kilometers; construction since 1940—none; Gage—1.435 meters or 4 ft. 8 1/2 inches. Maximum curvature—49 percent. Minimum curvature—24 percent. Maximum gradient—1.8 percent. Brake equipment—information not available. Bridges—192 varying in length from 5 to over 400 meter spans. Tunnels—one, 228 meters in length, located at kilometer 470. Clearance—4.8 meters above rails and 2 meters each side from center of track. Cross ties—5" x 10" x 7", and average 1,230 to 1,560 per kilometer. Rails—27- to 40-foot sections and 60 1/2 to 80 pounds per yard.

Repair shops—Located at Penarol for locomotives, passenger cars, and freight cars. Roundhouses—Located at Bella Vista, capacity 20; Penarol, capacity 22; San Ramon, capacity 2; Nico Perez, capacity 9; Melo, capacity 5; Treinta y Tres, capacity 3; Piedras, capacity 4; Florida, capacity 2; Mal abrigo, capacity 1; Colonia, capacity 4; Puerto Sauce, capacity 2; Mercedes, capacity 4; Paso de los Toros, capacity 20; Tacuarembó, capacity 6; and Rivera, capacity 4. Classification of freight carried—Goods, livestock, wool, and stone. Employees (1945)—5,169 of whom over 90 percent are Uruguayans.

Equipment (1945)—Steam locomotives, 91 in operation total 91, first-class coaches, 45 (56-64 passengers); mixed first- and second-class passenger coaches 12 (first-class, 28 second-class, 38 passengers); second-class coaches, 36 (83 passengers); sleeping cars, 12 (18 beds, 36 seats); unspecified, including official cars, etc., 18. Baggage cars, 85; freight cars, 2,291 broken down as follows: Boxcars, 512, flat cars, 1,057, tank cars, 40, livestock cars, 595, special types, 7. Capacities of the freight cars vary and no actual data is available for publication at this writing.

**Territory served.**—The Central Uruguayan Railway operates between Montevideo and Colonia. This road serves 11 of the 18 departments of the Republic. It is considered the most important railway. The other railways serve more or less as feeders of the Central. The southern, central, and eastern areas of Uruguay are serviced by this road.

**The Central Uruguay Railway Company of Montevideo, Ltd.**  
Traffic Statistics, 1943-44

Total freight carried...metric tons	1,183,497
Freight ton-kilometers	229,354,601
Freight train-kilometers	1,996,453
Average freight per ton-kilometer—U. pesos 1	0.033
Passengers carried	4,232,244
Passenger-kilometers	199,520,257
Passenger train-kilometers	723,775
Average passenger fare per passenger-kilometer—U. Pesos	0.0134
Operating revenue—do	13,783,818
Other revenue—do	186,704
Operating expenses—do	13,784,949

<sup>1</sup> The Uruguayan peso equals \$0.5263.

**MIDLAND URUGUAY RAILWAY COMPANY LTD.** (Ferrocarril Midland del Uruguay). Local address: Paysandu, Uruguay.

Length—Single line throughout, main line, 317 kilometers, branches, 198.1 kilometers, total, 515.1 kilometers. Gage—1.435 meters or 4 ft. 8 1/2 inches. Maximum curvature—Main line, 21 percent, branches, 24.2 percent. Maximum gradient—Main line, 1.5 percent, branches, less severe. Bridges—142, main line, 125, branches, 17, total length of bridges, 289 meters. Tunnels—none. Clearance—4.8 meters above rails and 2 meters from center line of track. Brakes—Gresham and Craven vacuum. Cross ties—12 per-

**Common Carriers—Privately Owned and Financed by British Capital**

Name	Main address	Local address	Route length main lines (kilometers)	Total trackage (kilometers)
Central Uruguay Railroad Company of Montevideo, Ltd...	London	Montevideo	1,579.0	1,579.0
Midland Railway Company, Ltd...	Berks, England	Paysandu	317.0	515.1
Uruguay Northern Railway	Berks, England	Paysandu	114.3	114.3
North-Western of Uruguay Railway Company, Ltd...	Berks, England	Paysandu	179.0	179.0
<b>Total</b>			<b>2,189.9</b>	<b>2,388.0</b>

cent steel, remainder hardwood, average 1,230 per kilometer on main line and 1,203 on the branches. Rails—Main line, 58 pounds per yard, branches, 60 1/2 pounds per yard.

Repair shops—The only repair shop is located at Paysandu, a shed at Salto used for minor repairs. Classification of freight carried—Parcels and luggage, goods, and livestock. Employees (1944)—9 British, 937 other nationalities.

Equipment, motive power (1945)—Steam locomotives 22, 20 of which are in operation (weight on drivers 14,730 kilos). Rolling stock (1945)—Boxcars, 102 in operation, 15 not in operation (capacity 11,658 kilos); gondola cars, 205 in operation, 10 not in operation (capacity 18,467 kilos); passenger coaches, 18 in operation, 2 not in operation (capacity 14,200 kilos); baggage cars, 5 (capacity weight in kilos 16,500).

**Territory served.**—The Departments of Paysandu, Salto, and Rio Negro are served by the Midland Uruguay Railway. Lending importance to this line is the fact that it links the three port cities of Uruguay, namely Fray Bentos, Salto, and Paysandu. The topography served by the Midland Railway is undulating.

**Midland Uruguay Railway Company, Ltd. Traffic Statistics, June 1944**

Total freight carried, metric tons	192,131
Freight ton-kilometers	37,678,584
Freight train-kilometers	573,682
Average freight rate per ton-kilometer, U. pesos	0.1703 to 0.3200
Passengers carried	94,510
Passenger kilometers	11,201,903
Passenger train-kilometers (motor coach)	148,997
Average fare per passenger-kilometer, U. pesos	0.0435
Operating revenue	1,554,770
Other revenue (Sterling)	£ 948.1
Operating expenses	1,488,040

<sup>1</sup> The £ Sterling equals \$4.03.

**URUGUAY NORTHERN RAILWAY** (Ferrocarril Norte del Uruguay). Local address: Paysandu, Uruguay.

Length—Single line throughout, no branches, 179.5 kilometers. Gage—1.435 meters or 4 ft. 8 1/2 inches. Maximum curvature—5 degrees, 45 minutes. Maximum gradient—2.17 percent. Bridges—133 less than 1 meter, 32 of 5 meters or more, total 165. Tunnels—None. Brakes—Gresham and Craven vacuum. Cross ties—Mixture of South American hardwoods and some steel: the steel ties are of Belgian manufacture weighing 134 pounds each. The timber ties are 2.50 x 0.24 x 0.12 meters,

hardwood, 2.50 x 0.24 x 0.12 meters, 1,094 average per kilometer of track. Rails—24-foot sections, 56 pounds per yard.

Repair shops—All major repairs are handled by the Midland Railway shops at Paysandu. Classification of freight carried—Parcels and luggage, goods, and livestock. Employees (1944)—British 9, other nationalities 61, total 70.

Equipment, motive power (1945)—Steam locomotives, 5 of 3,500 horsepower each. Rolling stock (1945)—Passenger coaches, 3 in operation, average weight capacity, 19,000 kilos; boxcars, 67 in operation, 9 not in operation; gondola cars, 54 in operation.

**Territory served.**—The Uruguay Northern Railway has an international significance in that its eastern terminal, Artigas, is on the Rio Cuareim which divides the northwest section of Uruguay from Brazil. The topography of the territory traversed by the Northern is undulating. The altitude of this section of the Republic ranges between 100 meters at kilometer 50.5 to 208.5 meters at kilometer 99.

**Uruguay Northern Railway Traffic Statistics, year ending June 30, 1944**

Total freight carried, metric tons	15,384
Freight ton-kilometers	1,392,202
Freight train-kilometers	28,412
Average freight rate per ton-kilometer, U. pesos	0.068 to 0.892
Passengers carried	9,881
Passenger kilometers	892,888
Passenger train-kilometers (motor coach)	53,807
Average passenger fare per passenger-kilometer, U. pesos	0.03511
Operating revenue, U. pesos	137,145
Other revenue (sterling)	£ 128
Operating expenses, U. pesos	151,626

**NORTH-WESTERN OF URUGUAY RAILWAY COMPANY LTD.** (Ferrocarril Noroestes del Uruguay). Local address: Paysandu, Uruguay.

Length—Single line throughout, no branches, 179.5 kilometers. Gage—1.435 meters or 4 ft. 8 1/2 inches. Maximum curvature—5 degrees, 45 minutes. Maximum gradient—2.17 percent. Bridges—133 less than 1 meter, 32 of 5 meters or more, total 165. Tunnels—None. Brakes—Gresham and Craven vacuum. Cross ties—Mixture of South American hardwoods and some steel: the steel ties are of Belgian manufacture weighing 134 pounds each. The timber ties are 2.50 x 0.24 x 0.12 meters,

1094 to 1230 ties per kilometer of track. Rails—24-foot long sections, 56 pounds per yard.

Repair shops—All major repairs are handled by the Midland Railway shops at Paysandu. Classification of freight carried—Parcels and luggage, goods, and livestock. Employees (1944)—305; information as to nationality is not available.

Equipment, motive power (1945)—Steam locomotives, 11 in operation, 5 not in operation, weight on drivers of 10,000 horsepower. Rolling stock (1945)—Passenger coaches, 9; baggage cars, 3; boxcars, 98 in operation, 6 not in operation; gondola cars, 86 in operation, 7 not in operation; flat cars, 14 in operation, 2 not in operation; cattle cars, 45 in operation, 3 not in operation.

*Territory served.*—The North-Western of Uruguay links the cities of Salto and Cuareim, and serves the Departments of Salto and Artigas.

*North-Western of Uruguay Railway Company, Ltd. Traffic Statistics, year ending June 30, 1944*

Total freight carried, tons	93,668
Freight ton-kilometers	13,375,922
Freight train-kilometers	192,068
Average freight rate per ton-kilometer, U. pesos	0.032 to 0.3147
Passengers carried	25,825
Passenger-kilometers	1,994,310
Passenger train-kilometers (motor coach)	89,099
Average passenger fare per passenger-mile, U. pesos	0.0499
Operating revenue, U. pesos	700,528
Other revenue (Sterling)	£ 3,231
Operating expenses, U. pesos	679,670

**URUGUAY STATE RAILWAYS.** (Ferrocarriles y Tranvías del Estado). Local address: 18 de Julio 1112, Montevideo, Uruguay.

Length—Railway, 606 kilometers, electric street railway, 16 kilometers, total 622 kilometers. Gage—Main line, 1.435 meters or 4 ft. 8½ inches, Puerto Sauce Branch, 0.91 meters, electric street railway, 1.435 meters or 4 ft. 8½ inches. Minimum curvature—Radius, 200 meters. Maximum gradient—Main line, 1.5 percent, Puerto Sauce Branch, and of the street railway gradient information not available. Bridges—Main line, 306 less than 5 meters, 74 over 5 meters; branch, 6 less than 5 meters, 6 over 5 meters; street railway, 22 less than 5 meters, 3 over 5 meters, total 417. Tunnels—None. Brakes—Information not available at this writing. Cross ties—Steel and hardwood, average 1,300 per kilometer on all lines. Rails—Attempt being made to standardize all rails on new lines, present rails 10 meters long, 32 kilometers per meter.

Repair shops—Located at Central, Salto, Fray Bentos, Tacuarembó, Empalme Olmos, Florida, Durazno, Puerto del Sauce, Treinta y Tres; Certain of these shops are equipped to service locomotives namely, Empalme Olmos, Florida, Durazno, Puerto del Sauce, and Treinta y Tres. Classification of freight carried—Agriculture and dairy

### Railways of Uruguay

Name	Ownership and operation	Gage	Kilometers	Freight tons	Number of passengers
Ferrocarril Central del Uruguay	British	(Meters) 1.435	1,579.000	1,183,497	4,232,244
Ferrocarril Midland del Uruguay	British	1.435	515.139	1,192,131	94,510
Ferrocarril Noroeste del Uruguay	British	1.435	182.000	93,668	25,825
Ferrocarril Norte del Uruguay	British	1.435	114.312	1,15,384	9,881
Ferrocarriles y Tranvías del Estado	Federal	1.435	622.000	1,383,951	1,697,528
Ferrocarril del Puerto	Federal	{ (1.435) (0.90)	{ (25,000) (4,000)	108,899	
Ferrocarril del Piria	Uruguayan	0.75	15.000	(2)	
Tramways of Uruguay					
Montevideo Tramway Co.	British	4' 7½"	256.824		149,567,120

<sup>1</sup> Metric tons.

<sup>2</sup> Not available.

products, timber, mineral products, manufactured goods, livestock, and miscellaneous goods. Employees (1945)—As of April 30, 1945 there were 1,669 persons employed by the State Railways, 71 being foreigners.

Equipment, motive power—Steam locomotives 23, not including 4 obsolete locomotives operating on the narrow-gage line at Puerto del Sauce; weight on drivers ranges from 24,700 to 38,661 kilograms. Rolling stock—Passenger coaches, 24 including 2 used on the narrow-gage line; baggage cars, 15; freight cars, all types, 808 having a capacity of from 1,010 to 4,795 metric tons; motor rail cars, 46—the majority of these cars are rented to other railways.

*Territory served.*—The Uruguay State Railways serve the south and eastern parts of the Republic, especially the resort areas in and around Montevideo. Expansion of the State Railways has been increased since the Government entered the field in January 1915.

*Uruguay State Railways (Ferrocarriles y Tranvías del Estado) Traffic Statistics, 1943*

Total freight carried, metric tons	383,951
Freight ton-kilometers	36,682,555
Freight train-kilometers	789,345
Average freight rate per ton-kilometer, U. Pesos	0.0235 to 0.0325
Passengers carried	1,697,528
Passenger-kilometers	42,991,686 <sup>2</sup>
Passenger train-kilometers (motor rail cars)	788,096
Passenger train-kilometers (rented motor rail cars)	2,962,200
Average passenger fare per passenger kilometer <sup>1</sup> U. pesos	0.0116 to 0.0129
Operating revenue do	1,532,168.30
Other revenue do	514,451.93
Operating expenses:	
Railways do	2,178,690.84
Electric street railways do	63,061.32

<sup>1</sup> 1944.

<sup>2</sup> Of this total, 5,092,261 passenger-kilometers were carried by street railways.

**ADMINISTRACION NACIONAL DE PUERTOS** (Port Railway). Local address: Montevideo, Uruguay.

Length—29 kilometers. Gage—1.435 and 0.9 meters. Rails—There are three sizes of 80 pounds per yard as follows:

Equipment, motive power (1943)—8.19, 10.06, and 12.19 meters in length. Steam locomotives 10, one of these operating on the narrow-gage section of the line, horsepower ranges from 20 to 520; gasoline tractors, 3 having 40 horsepower each and operating on the standard-gage section of the line. Rolling stock—flat cars, 112; boxcars, 15; total, 127.

Repair shops—All equipment is in good condition and is maintained by the shops of the State Railway. Classification of freight carried—Canned products, meat, salted hides, dried hides, tanned hides, wool, animal hair, bones and ashes, linseed, wheat, tobacco, potatoes, rice, machinery, minerals, lumber, wood and charcoal, and all types of miscellaneous goods received at the port.

*Territory served.*—Provides rail transport throughout the Port of Montevideo, connecting through the Central Uruguay Railway, with the rail network of the country. It is owned and operated by the Uruguayan Government through the Port Administration.

*Port Railway (Administracion Nacional de Puertos) Traffic Statistics, 1943*

Total freight handled, metric tons	108,899
Freight handled between warehouses, tons	1,600
Number of cars received, loaded	4,696
Number of cars received, empty	2,736
Number of cars dispatched, loaded	2,740
Number of cars dispatched, empty	4,702
Ships unloaded direct to railway	5,364
Freight received from other railways, metric tons	65,318
Freight dispatched to other railways, metric tons	44,403

No figures are available concerning the revenue and operating expenses of the Port Railway.

**PIRIA RAILWAY.** Local address: Piriapolis, Uruguay.

Length—15 kilometers. Gage—0.75 meters. Rails—30 kilograms per meter,



obtained from the Central Uruguay Railway.

**Repair shops**—All repairs and maintenance of rolling stock are made at

a machine shop attached to the marble quarries.

**Equipment motive power (1944)**—Steam locomotives, six, none of which

are in operation due to need of repairs, thus service has been suspended. Inventory shows 50 flat cars, 50 dump cars, and 14 passenger coaches as still the property of the railway.

No financial information pertaining to this railroad is available.

**Territory served.**—This railway was built by Francisco Piria to service the large marble quarries operated by him at the Mountain of Pan de Azucar. The line connects with the State Railway at Pan de Azucar station and runs 15 kilometers to its terminal at Piriapolis. Traffic statistics over the Piria Railway are unavailable.

**MONTEVIDEO TRAMWAY CO.** (Sociedad Commercial de Montevideo). Local address: Rincon 508, Montevideo, Uruguay.

Length—256.8 kilometers. Gage—4 ft. 7½ inches. Rails—82 pounds per

yard, 45 feet length of section, and of standard type.

**Repair shops**—Located at Estacion Central, Estacion Agraciada, Estacion Este, Estacion Artigas, Estacion Goes, Estacion Pocitos, Estacion Reducto, and Estacion Union. The main shop is at Estacion Central, while the others serve as emergency or auxiliary shops. Employees—3,900, 80 percent of whom are Uruguayan citizens.

**Equipment**—There is no complete data available on the equipment of the Montevideo Tramway Company. However, such data as is available follows: 640 streetcars with 4 wheels each and a seating capacity of 32; 10 streetcars

having 8 wheels each and a seating capacity of 44. Due to the shortage of spare parts and wheels, about 80 of the aforementioned streetcars are out of service.

**Territory served.**—Starting at the Port of Montevideo, various lines of the Tramway extend in a fan shape throughout Montevideo and its many suburban areas.

*Montevideo Tramway Co. Traffic*

*Statistics, March 31, 1944*

Passengers carried <sup>1</sup>	149,567,120
Total kilometers	32,058,028
Number of trips	1,906,636
Revenue acquired	U. pesos 6,179,572.20
Other revenue (rental of cars to State Railway)	do 43,811.88
Operating expenses	do 5,930,945.61

<sup>1</sup> Fiscal year ending March 31, 1944.

★U. S. GOVERNMENT PRINTING OFFICE: 1946—707793—51